

RHEO™

FLOWABLE AMNIOTIC MATRIX ALLOGRAFT



RHEO™ is a connective tissue allograft flowable matrix. It's derived from chorion-free human placental tissue and amniotic fluid, cryopreserved to maintain the viability of the intercellular messengers. **RHEO™** retains the biologic functionality that ensures symmetrical structure development, growth, and repair of the soft tissue by acting as a biologic matrix for use in filling defects, or for points of localized inflammation.

The placental Extracellular Matrix (ECM) modulates correct cellular reconstruction rather than scar tissue formation. This ECM includes growth factors, fibronectin, laminin, hyaluronic acid, proteoglycans, and other proteins. Anti-inflammatory and anti-fibrotic proteins in placental ECMs reduce inflammation, fibrous tissue growth, and potential scar tissue formation as they downregulate TGF-Beta1, suppress pro-inflammatory cytokines, and inhibit MMPs and fibroblast formation.

TISSUE SOURCE AND PRODUCT CONTENTS



	Placenta	Placenta	Umbilical Cord	
	RHEO™ Amniotic Matrix Allograft	AEON™ Amniotic Fluid Allograft	OROPRO™ Wharton's Jelly Allograft	
Cytokines	General Cytokines Fetuin-A Interleukin 37 Macrophage Colony Stimulating Factor Serpin A4 Syndecan - 4			
	Growth Factor Cytokines Bone Morphogenic Protein - 7 Complement Component 5a Fibroblast Growth Factor Platelet Derived Growth Factor Thrombospondin - 2			
	Scaffolding Cytokines Adhesion G Protein Collagen 1, 2, 3 Elastin Fibronectin Hyaluronic Acid			
	Homeostatic Cytokines Cystatin - B Galectin - 9 Granulysin Lipocalin - 2 Intracellular Adhesion Molecule 1			
ISCT Standards	Mesenchymal Stem Cell Attributes Mesenchymal Stem Cells (MSC) Biologically Young Source Viable MSC Count Positive Expression of CD73 Positive Expression of CD90 Positive Expression of CD105 Lack Expression of CD14 Lack Expression of CD34 Lack Expression of CD45 Lack Expression of HLA-DR Lack Expression of CD19 Viable MSC: Plastic Adherent			

The number of drop icons reflect relative factor amounts as compared to other BioStem Technologies™ products. All data represented on this grid is informed by either or all available literature, external validation, and internal testing. Empty data fields indicate quantities either found in trace amounts or quantities not specified in literature. Citations and references on file with BioStem Technologies™.

TISSUE DONORS

Healthy women 18-35 years old undergo an extensive clinical risk assessment of their medical and social histories, as well as blood and tissue testing to determine eligibility to donate. The placental tissue can be accepted for donation after a healthy baby is delivered via elective Caesarian section.